CLAIMS

Sub A1

1. A magnetic substance of a magnetic composition comprising M, X and Y, where M is a metallic magnetic material consisting of Fe, Co, and/or Ni, X being element or elements other than M and Y, and Y being F, N, and/or O, which is characterized in that said M-X-Y magnetic composition has a concentration of M in the composition so that said M-X-Y magnetic composition has a saturation magnetization of 35-80% of that of the metallic bulk of magnetic material comprising M alone, said magnetic composition having the maximum μ''_{max} of complex permeability μ'' in a frequency range of 0.1-10 gigahertz (GHz).

2. The magnetic substance according to claim 1, which has a complex permeability frequency response of a relatively narrow band where a relative bandwidth bwr is 200% or less, said relative bandwidth bwr is determined as a percentage ratio of bandwidth between two frequency points which shows the complex permeability as a half value μ''_{50} of the maximum μ''_{max}, to center frequency of said bandwidth.

3. The magnetic substance according to claim 2, said metallic magnetic material X having a saturation magnetization, wherein said magnetic composition has a saturation magnetization which is 60-80% of the saturation magnetization of the metallic magnetic material X.

Sub A2

4. The magnetic substance according to claim 2 or 3, wherein said magnetic composition has a DC specific resistance of 100-700 $\mu\Omega \cdot$ cm.

5. The magnetic substance according to claim 1, which has a complex permeability frequency response of a relatively broad band where a relative bandwidth bwr is 150% or more, said relative bandwidth bwr is determined as a percentage ratio of bandwidth between two frequency points which shows the complex permeability as a half value μ''_{50} of the maximum μ''_{max}, to center

frequency of said bandwidth.

6. The magnetic substance according to claim 5, said metallic magnetic material X having a saturation magnetization, wherein said magnetic composition has a saturation magnetization which is 35-60% of the saturation magnetization of the metallic magnetic material X.

7. The magnetic substance according to claim 5 or 6, wherein said magnetic composition has a DC specific resistance of 500 $\mu\Omega \cdot$ cm or more.

8. The magnetic substance according to any one of claims 1-7, wherein X being C, Bi, Si, Al, Mg, Ti, Zn, Hf, Sr, Nb, Ta, and/or rare-earth metals.

9. The magnetic substance according to any one of claims 1-8, wherein said metallic magnetic material M is distributed as granular grains in a matrix composition consisting of X and Y.

10. The magnetic substance according to claim 8, wherein said granular grains have an average grain size of 1-40 nm.

11. The magnetic substance according to any one of claims 1-10, wherein said magnetic composition has an anisotropy field of 600 Oe or less.

12. The magnetic substance according to any one of claims 1-11, wherein said magnetic composition is a composition represented by a fomula of Fe_{α}-Al_{β}-O_{γ}.

13. The magnetic substance according to any one of claims 1-11, wherein said magnetic composition is a composition represented by a formula of Fe_{α}-Si_{β}-O_{γ}.

14. The magnetic substance according to any one of claims 1-13, wherein said magnetic composition is a thin film formed by sputtering process.

15. The magnetic substance according to any one of claims 1-13, wherein said magnetic composition is a thin film formed by vapor deposition process.

16. The magnetic substance according to any one of claims 1-15, which is formed as a plate having a thickness of 0.3-20 μcm for use as a high frequency noise suppressor.

17. A method for suppressing a high frequency noise from flowing in a circuit line in an electronic device characterized by disposing said plate of claim 16 adjacent to, or directly onto said electronic device.